

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

DIGI PORTAL LLC,

Plaintiff,

v.

AVEDA CORPORATION,

Defendant.

C.A. No. 1:20-cv-01723-MN

PATENT CASE

JURY TRIAL DEMANDED

**PLAINTIFF DIGI PORTAL LLC'S OPPOSITION TO
DEFENDANT AVEDA CORPORATION'S MOTION TO
DISMISS FOR FAILURE TO STATE A CLAIM**

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TABLE OF CONTENTS

	Page
TABLE OF CONTENTS.....	i
TABLE OF AUTHORITIES	iii
TABLE OF EXHIBITS	v
TABLE OF ABBREVIATIONS	vi
I. SUMMARY OF THE ARGUMENT	1
II. CONCISE STATEMENT OF THE FACTS	2
A. Serving Customized Pages in the Prior Art Was Inefficient and Not Scalable	2
B. The Claims Recite New Ways of Generating Customized Web Pages that Improve Efficiency and Scalability over Prior Art Systems.....	3
C. The Specification Discloses Examples Including Source Code	4
D. The Prosecution Histories Also Explain the Unconventional and Non-Generic Features that Make the Generation of Customized Pages Quicker, More Efficient, and Use Less Resources	6
E. Judge Stark Previously Denied a §101 Motion Directed to the ‘854 Patent	7
III. STATEMENT OF THE LAW	8
IV. ARGUMENT	9
A. The ‘854 Group Patents are Eligible Under §101	9
1. Aveda Rehashes Arguments Rejected by Judge Stark	9
2. The ‘854 Group Claims are Not Directed to an Abstract Idea	10
a. Defendant’s Alleged Abstract Idea is Inconsistent with the Claim Which Allows Providing Information from a Less Convenient Location Based on the Frequency of a Request	10
b. Claim 1 of the ‘854 Patent is Directed to Specific Asserted Improvements in Computer Capabilities	12
3. The ‘854 Group Claims Have Inventive Concepts	14

4.	The Remaining ‘854 Group Claims Are Patent Eligible and Are Not Properly Lumped in with the ‘854 Patent	16
B.	Claim 2 of the ‘227 Patent is Eligible Under §101	17
1.	Claim 2 of the ‘227 Patent Does Not Recite an Abstract Idea.....	17
2.	Claim 2 of the ‘227 Patent Has Inventive Concepts	19
CONCLUSION.....		20

TABLE OF CITATIONS

	Page(s)
Cases	
<i>3G Licensing, S.A. v. HTC Corp.</i> [; <i>Digi Portal LLC v. Quotient Tech., Inc.</i>], 2019 U.S. Dist. LEXIS 112112 (D.Del. July 5, 2019) (“ <i>Digi Portal</i> ”)	passim
<i>Alice Corp. Pty. Ltd. v. CLS Bank Int’l</i> , 134 S.Ct. 2347 (2014).....	passim
<i>Bascom Global Internet Serv. v. AT&T Mobility LLC</i> , 827 F.3d 1341 (Fed.Cir. 2016).....	passim
<i>Bridge & Post, Inc. v. Verizon Communs., Inc.</i> , 778 Fed.Appx. 882 (Fed.Cir. 2019).....	18
<i>Cellspin Soft, Inc. v. Fitbit, Inc.</i> , 927 F.3d 1306 (Fed.Cir. 2019).....	8
<i>Commil USA, LLC v. Cisco Sys.</i> , 135 S.Ct. 1920 (2015).....	8
<i>Customedia Techs., LLC v. Dish Network Corp.</i> , 951 F.3d 1359 (Fed.Cir. 2020).....	14
<i>Data Engines Techs. LLC v. Google LLC</i> , 906 F.3d 999 (Fed.Cir. 2018).....	13, 14
<i>DDR Holdings, LLC v. Hotels.com, L.P.</i> , 773 F.3d 1245 (Fed.Cir. 2014).....	9, 16, 20
<i>Enfish, LLC v. Microsoft Corp.</i> , 822 F.3d 1327 (Fed.Cir. 2016).....	passim
<i>Finjan, Inc. v. Blue Coat Sys.</i> , 879 F.3d 1299 (Fed.Cir. 2018).....	13, 14
<i>Hyper Search, LLC v. Facebook, Inc.</i> , 2018 U.S. Dist. LEXIS 212336 (D.Del. Dec. 17, 2018).....	17
<i>Intellectual Ventures I LLC v. Capital One Bank (USA)</i> , 792 F.3d 1363 (Fed.Cir. 2015).....	18
<i>Internet Patents Corp. v. Active Network, Inc.</i> , 790 F.3d 1343 (Fed.Cir. 2015).....	17
<i>Koninklijke KPN N.V. v. Gemalto M2M GmbH</i> , 942 F.3d 1143 (Fed.Cir. 2019).....	9, 18
<i>Mayo Collaborative Services v. Prometheus Laboratories, Inc.</i> , 132 S.Ct. 1289 (2012).....	8, 9
<i>McRO, Inc. v. Bandai Namco Games Am. Inc.</i> , 837 F.3d 1299 (Fed.Cir. 2016).....	passim

<i>Microsoft Corp. v. i4i Ltd. P’ship</i> , 131 S.Ct. 2238 (2011).....	8
<i>Morsa, In re</i> , 809 Fed.Appx. 913 (Fed.Cir. 2020).....	18
<i>Personalized Media Communs., LLC v. Amazon.com, Inc.</i> , 161 F.Supp.3d 325 (D.Del.).....	18
<i>Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.</i> , 827 F.3d 1042 (Fed. Cir. 2016).....	14
<i>Realtime Data LLC v. Reduxio Sys.</i> , 2020 U.S. App. LEXIS 33527 (Fed.Cir. Oct. 23, 2020).....	10
<i>SynKloud Techs., LLC v. HP Inc.</i> , 2020 U.S. Dist. LEXIS 178524, (D.Del. Sept. 28, 2020).....	17
<i>Tecsec, Inc. v. Adobe Inc.</i> , 2020 U.S. App. LEXIS 33408 (Fed.Cir. Oct. 23, 2020).....	14, 18
<i>Thorner v. Sony Computer Ent. America LLC</i> , 669 F.3d 1362 (Fed.Cir. 2012).....	11
<i>Versata Software, Inc. v. NetBrain Techs., Inc.</i> , 2015 U.S. Dist. LEXIS 132000 (D.Del. Sept. 30, 2015).....	12
<i>Visual Memory LLC v. NVIDIA Corp.</i> , 867 F.3d 1253 (Fed.Cir. 2017).....	8, 19
Statutes	
35 U.S.C. §101.....	passim
35 U.S.C. §282.....	8
Rules	
Rule 12(b)(6), Fed.R.Civ.P.	8

TABLE OF EXHIBITS

Exhibit A	United States Patent No. 8,352,854 (“854 patent”) (D.I. 1, Ex. A)
Exhibit B	United States Patent No. 5,983,227 with Exhibits A & B (D.I. 1, Ex. B)
Exhibit C	Response to Office Action in Application No. 11/842,095 (‘854 patent) dated October 28, 2010 (D.I. 1, Ex. C)
Exhibit D	Response to Office Action in Application No. 11/842,095 (‘854 patent) dated April 18, 2011 (D.I. 1, Ex. D)
Exhibit E	Response to Office Action in Application No. 08/873,975 (‘227 patent) dated March 4, 1999 (D.I. 1, Ex. E)
Exhibit F	Notice of Allowability in Application No. 08/873,975 (‘227 patent) dated April 9, 1999 (D.I. 1, Ex. F)
Exhibit G	United States Patent No. 7,171,414 (D.I. 1, Ex. G)
Exhibit H	Response to Office Action in Application No. 09/393,718 (‘414 patent) dated August 15, 2006 (D.I. 1, Ex. H)
Exhibit I	Response to Office Action in Application No. 09/393,718 (‘414 patent) dated February 27, 2006 (D.I. 1, Ex. I)
Exhibit J	Notice of Allowability in Application No. 09/393,718 (‘414 patent) dated Sept. 7, 2006 (D.I. 1, Ex. J)
Exhibit K	United States Patent No. 7,565,359 (D.I. 1, Ex. K)
Exhibit L	Notice of Allowability in Application No. 11/656,636 (‘359 patent) dated April 1, 2009 (D.I. 1, Ex. L)
Exhibit M	United States Patent No. 9,626,342 (D.I. 1, Ex. M)
Exhibit N	Chart of asserted independent claims highlighted to show overlapping and non-overlapping limitations
Exhibit O	Quotient Technology Inc.’s Opening Brief in Support of its Motion to Dismiss for Failure to State a Claim, Digi Portal LLC v. Quotient Technology, Inc., C.A. No. 18-1485, D.I. 12 (D.Del. Nov. 16, 2018).

TABLE OF ABBREVIATIONS

'227 Patent	U.S. Patent No. 5,983,227
'854 Patent	U.S. Patent No. 8,352,854
'414 Patent	U.S. Patent No. 7,171,414
'359 Patent	U.S. Patent No. 7,565,359
'342 Patent	U.S. Patent No. 9,626,342
'854 Group	'854 Patent, '414 Patent, '359 Patent, and '342 Patent (incorrectly referred to as the “Cache Patents”)
<i>Digi Portal</i>	<i>3G Licensing, S.A. v. HTC Corp.</i> [: <i>Digi Portal LLC v. Quotient Tech., Inc.</i>], 2019 U.S. Dist. LEXIS 112112 (D.Del. July 5, 2019)

Plaintiff Digi Portal LLC (“Digi Portal”) files this Opposition to Defendant Aveda Corporation (“Aveda”) Motion to Dismiss (D.I. 10, 11) (“§101 Motion”).

I. SUMMARY OF THE ARGUMENT

Aveda’s patent ineligibility argument for the “Cache Patents” (a misnomer and referred to herein as “the ‘854 Group”) addresses only claim 1 of U.S. Patent No. 8,352,854. In an earlier case, Judge Stark denied a motion to dismiss that also contended that the claims of the ‘854 patent were patent ineligible under 35 U.S.C. §101. *3G Licensing, S.A. v. HTC Corp.*[: *Digi Portal LLC v. Quotient Tech., Inc.*], 2019 U.S. Dist. LEXIS 112112 (D.Del. July 5, 2019) (“*Digi Portal*”). Judge Stark held that the claims of the ‘854 patent were not directed to “providing targeted information, including advertising.” *Id.* at *8. Judge Stark further held that there were two inventive concepts rendering the claims patent eligible: “storing the template program in at least two locations and... determining from which locations to retrieve the template based on the frequency of the user request for the customized page.” *Id.* at *9.

Aveda¹ tries to use Judge Stark’s opinion as a template for creating an abstract idea. Aveda’s takes the prior incorrect abstract idea and adds an inaccurate summary of the inventive concepts to create the “new” abstract idea of “providing customized information to a user from the most convenient location.” In effect, Aveda argues that not only did Judge Stark wrongly hold that there were inventive concepts, but the inventive concepts are in fact abstract ideas. Aveda is only repeating arguments that were raised before, and rejected by, Judge Stark.

Regardless, on the first step of the §101 analysis, the asserted claims are not directed to an abstract idea. The ‘854 Group are not “cache” patents because they are not directed to caching information. Instead, the claims recite a new way of generating customized web pages to improve

¹ Aveda is represented by the same Fish & Richardson attorneys that represented the prior defendant in the case before Judge Stark.

the efficiency and scalability of delivering them. The claims provide a specific solution to prior art technological problems, including long wait times to load pages in browsers and clogged networks due to continuous streaming and large amounts of local storage that quickly becomes out of date. On the second step, the claims have the inventive concepts of storing the template program in at least two locations and determining from which locations to retrieve the template based on the frequency of the user request for the customized page. The invention changes the computer functionality to improve the efficiency of a process that was already using a computer. The '227 patent, like the '854 patent, has limitations that improve upon the prior art. All claims are therefore directed to patent eligible subject matter.

II. CONCISE STATEMENT OF THE FACTS

The '854 Patent, '414 Patent, '359 Patent, '342 Patent, and '227 Patent are related and share the same specification. As Judge Stark held, the shared specifications explain that the invention “is intended to resolve technological problems in the prior art, including long wait times to load pages and browsers and clog[ged] networks due to continuous streaming and large amounts of local storage that quickly becomes out of date.” *Digi Portal*, 2019 U.S. Dist. LEXIS 112112, *8; (Ex. A at col. 1:26-30, 42-58; col. 4:10-11, 15-29, 49-59, col. 5:22-32).²

A. Serving Customized Pages in the Prior Art Was Inefficient and Not Scalable

Web servers for serving static (fixed information) web pages were well known in the global Internet. (*Id.* at col. 1:31-32). Static web pages are useful in many applications, such as providing the same information to many users, but some applications require customization to appeal to users. (*Id.* at col. 1:32-35). For example, when presenting news to users, customized web pages present news that is more relevant to the requesting user than static pages because the information

² This brief will only cite to the '854 patent because the patents share the same specification and contain the identical cited disclosures.

is filtered according to each user's interest. (*Id.* at col. 1:35-37, 40-41).

Customizing a server response based on the requester was known; however, known systems did not scale well. (*Id.* at col. 1:42-43). One method of serving custom pages is to execute a script, such as a Common Gateway Interface (CGI) script to collect the information necessary to generate the custom page. (*Id.* at col. 1:43-47). For example, if the custom page is a news page containing stock quotes, sports scores, and weather, the script might poll a stock quote server, poll a sports score server, and poll a weather server to obtain stock quote, sports scores, and weather of interest. (*Id.* at col. 1:47-51). With this information, the server generates the custom page and returns it to the user. (*Id.* at col. 1:51-52). This approach is only useful where there are not many requesters and where the delay associated with polling various servers is acceptable. (*Id.* at col. 1:53-58). The inventors therefore recognized a need to dynamically generate customized pages in an unconventional manner that solved the technical problems in the prior art of long transfer times to obtain the requested information or relying on continually transferring custom information in non-real time which can clog the data network. (*Id.* at col. 1:42 to col. 2:2).

B. The Claims Recite New Ways of Generating Customized Web Pages that Improve Efficiency and Scalability over Prior Art Systems

Digi Portal is asserting claims 1-2, 8-9, and 15 of the '854 patent, claim 2 of the '227 patent, claims 1 and 3 of the '414 patent, claim 10 of the '359 patent, and claim 1 of the '342 patent. Although Defendant isolates the '227 patent from the remaining patents, the asserted patents have both overlapping and non-overlapping claim limitations that recite new ways of generating customized web pages to improve the efficiency and scalability of delivering them. For example:

- All asserted claims require executing a template program specific/unique to the user to generate a customized page.
- The asserted claims of the '854 patent, '414 patent, '359 patent, and '342 patent require that the template program is received from one of at least two locations, the location determined from the frequency of the user request for the customized page.

- The asserted claims of the ‘227, ‘414, and ‘359 patents require that real-time information is stored in a storage device and used as input for the template program, with the ‘414 and ‘359 patents also requiring a shared local storage device.
- The asserted claims of the ‘414 patent and ‘359 patent require a user identifier associated with the request for a customized page and that the unique user template program is received using the user identifier associated with the request.
- The asserted claims of the ‘227, ‘854, ‘359, and ‘342 patents require combining user configuration information and a template to form a user-specific template program.
- The asserted claims of the ‘359 and ‘342 patents require that the template program unique to the user is generated using a global/generic template.

The asserted claims also have some limitations not found in any of the other claims. For example:

- Claim 1 of the ‘414 patent requires that the user-specific template program is stored in a data structure associated with a unique user identifier.
- Claim 2 of the ‘227 patent requires that executing the template program and providing the customized page are performed in real-time response to a request and the customized page includes real-time information from the storage device.
- Claim 1 of the ‘342 patent requires real-time information selected for the user’s customized page in response to a subsequent request and based on customization information unique to the user.

Exhibit N highlights overlapping and non-overlapping elements of asserted independent claims.

As shown in Exhibit N, none of the claims are representative of any other claims.

C. The Specification Discloses Examples Including Source Code

The specification provides non-limiting examples of how to generate the template program unique to the user. In one example, a front-page generator generates a user template from a global template and a user configuration record. (Ex. A at Fig. 2, col. 3:58-62). Figure 3 is an exemplary global template (204) with placeholders (302) to insert template information based on user configuration information. (Ex. A at Fig. 3, col. 5:16-19). User configuration information includes user demographic information, such as sex, age, location, stock quotes, favorite sports teams, news topics. (*Id.* at col. 2:13-14, col. 5:45-50, col. 6:37-39, 46-48, 52-56).

Figure 4 is an exemplary generated unique user template program that is based on user configuration information (including demographic information) provided by the user. (Ex. 4 at Fig. 4). The user template is unique because it is built based on user demographic information provided by the user, as opposed to generically chosen dynamic information or based on information from the server. Exemplary demographic information is shown in Fig. 4 line 2 (“:M,85,95035,T,*”) indicating that the user is a male, age 85, located in zip code 95035, etc. (*Id.* at col. 5:42-45). The patents include a listing of an exemplary unique user template of Fig. 4 in Appendix A. (Ex. A at col. 2:57-58; col. 5:22-23; Ex. B at Col. 7-11). Exemplary source code of an HTML page created from an executed user template used to generate a user customized web page is in Appendix B of the patents-in-suit. (Ex. A at col. 2:58-60; Ex. B at col. 11 – col. 19).

The specification explains the benefits of the claimed invention including speeding up the operation of the dynamic page generation because the unique user template program can be stored in multiple locations that are based on the frequency that the user requests the customized page. (Ex. A at col. 3:17-26, 37-39, col. 4:49-59). Some users might access their user page infrequently, while others might access their front page hourly. (*Id.* at col. 3:52-54). For infrequent users, the user template program is stored in a user configuration database, whereas for frequent users the user template may also be stored in a second location, such as a page server. (*Id.* at col. 3:17-26, 37-39, col. 4:51-59). Storing the user template program at the page server reduces the time to respond to a request for a page and is more effective where the typical user makes several requests in a short time and then doesn’t make any requests for a long period of time. (*Id.* at col. 5:29-32). Even if it is flushed from memory due to inactivity, the user template program can be maintained in a database or stored in other page servers, which can be quickly accessed and stored in the page server when a user again accesses the page. (*Id.* at col. 4:49-52, 59-60, 62-65).

Another benefit of the claimed inventions is storing real-time information for use in executed user-specific template programs. (*E.g.*, Ex. G at col. 2:25-28). Storing real-time information improves upon the prior art because the custom page can be built within the page server thereby eliminating requests to other servers. (*Id.*). Another aspect of the inventions requires storing the unique user template with a user identifier, which allows for the server to access the unique user template program more quickly. (Ex. G at col. 3:61-64).

D. The Prosecution Histories Also Explain the Unconventional and Non-Generic Features that Make the Generation of Customized Pages Quicker, More Efficient, and Use Less Resources

The prosecution histories³ explain the unconventional technical improvements that make the generation of customized dynamic web pages quicker, more efficient, and use less resources.

Claims were distinguished from the prior art by explaining that storing a customized user template was different from customization consisting of using demographic information to select a banner advertisement. (Ex. C at 8). A customized template must be used rather than a generic template with customized information such as advertisements. (Ex. C at 8-9, Ex. D at 6; Ex. L at 8). A unique user template program conserves network and database resources. (*See id.* at col. 4:10-11, col. 5:23-32). Storing the unique user template program prevents having to regenerate a new unique user template program thus saving database and server resources and more quickly generating the web page from the template. (*E.g.*, *id.* at col. 3:37-39, col. 4:1-11, 49-62).

The storage of a unique user template program in at least two locations and the location to receive the program is determined from the frequency of the user request for the customized page was unconventional and non-generic. (Ex. C at 9). In the prior art, the published web site was

³ Defendant falsely alleges a “first of many rejections” during the prosecution of the ‘227 patent. (D.I. 11 at 3). There was only *one* office action and it was made *before* asserted claim 2 was added to the application. (Compare, D.I. 11 Ex. A with D.I. 1 Ex. E at 2-3). Claim 2 of the ‘227 patent issued without rejection. (D.I. 1 at Ex. E, F).

stored on a server and provided from one server location regardless of the frequency of the user requests for the web site. (*Id.*, Ex. H at 9-10). For example, by storing the unique user template program in user configuration database and in the page server, the dynamic generation of a user customized web page is more efficient and uses less resources of the server, database, and network. (*See* Ex. A at col. 1:42-67, col. 4:49-col. 5:15, col. 5:23-32). This allows for the quicker generation of the dynamic web page thereby allowing the server to scale to handle substantially more requests for user customized dynamic web pages. (*Id.*).

Storing real-time information in a shared storage device was an unconventional feature that improved upon the prior art. An example is when live data that is used to fill templates is stored local to the page server which is handling user requests for custom web pages. (Ex. I at 8; Ex. G at col. 2:11-15). Every piece of information that a person can request on a page is storable in a shared memory closely coupled to a page generator. (Ex. I at 9; Ex. G at col. 4:43-58). Unlike the prior art CGI scripts that required time consuming calls to other servers, storing real-time information in a shared local storage device allows for any custom page to be built within the page server thereby eliminating requests to other servers for live data. (Ex. I at 9; Ex. G at col. 2:25-31). It was unconventional to download real-time information into a server and use a template for the static data as opposed to linking directly to real-time information. (Ex. E at 5, Ex. F at 2).

E. Judge Stark Previously Denied a §101 Motion Directed to the ‘854 Patent

In an earlier case brought by Digi Portal, a defendant contended that the same asserted claims of the ‘854 patent were ineligible under §101. The defendant argued that the claims were directed to the abstract idea of “providing targeted advertising to a user.” (Ex. O at 1).

Judge Stark rejected Defendant’s argument on step 1 of the §101 analysis:

At Step 1 of Alice, I find that defendant oversimplified the abstract idea. The claim is directed to more than just providing targeted information, including advertising to a user.

Claim 1 recites a new way of generating customized web pages to improve the efficiency and scalability of delivering them. The patent specification further explains that this implementation is intend[ed] to resolve technological problems in the prior art, including long wait times to load pages in browsers and clog[ged] networks due to continuous streaming and large amounts of local storage that quickly becomes out of date.

Digi Portal, 2019 U.S. Dist. LEXIS 112112, *8. Judge Stark also held there were two inventive concepts in the asserted claims:

Turning to Step 2, defendant has failed to show by clear and convincing evidence that claim 1 lacks an inventive concept. To the contrary, based on the record as it currently exists and taking all well pled facts as true, the claim at least captures the inventive concept of storing the template program in at least two locations and... determining from which locations to retrieve the template based on the frequency of the user request for the customized page. These inventive concepts are stated with specificity in the second element of the claimed method.

Id. at *9. The Court concluded that “the invention is changing the computer functionality to improve the efficiency of the technological process that was already using a computer.” *Id.* at *10.

III. STATEMENT OF THE LAW

A patent is presumptively valid and patent eligible under §101. *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed.Cir. 2019). The burden of establishing invalidity of any patent claim rests on Defendant. 35 U.S.C. §282; *Microsoft Corp. v. i4i Ltd.*, 131 S.Ct. 2238, 2245 (2011). And, on “a motion to dismiss under Rule 12(b)(6), [] all factual inferences drawn from the specification [of the patent] must be weighed in favor of [] the non-moving party.” *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1261-62 (Fed.Cir. 2017).

The §101 analysis consists of two steps. *Mayo Collaborative Serv. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289, 1296-1297 (2012). The first step determines whether the claims at issue are directed to a patent-ineligible concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2355 (2014). Step two examines the claim elements individually and as an ordered combination “to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed

abstract idea into a patent-eligible application.” *Alice*, 134 S.Ct. at 2357 (citing *Mayo*, 132 S.Ct. at 1294, 1298).

Software claims are not abstract if “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed.Cir. 2014); *see also Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1150-1151 (Fed.Cir. 2019). Even if software claims use generic computers, they are eligible if they do not preempt the idea on the Internet or generic computers performing conventional activities. *Bascom Global Internet Serv. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350-51 (Fed.Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338 (Fed.Cir. 2016). So long as the novelty is not simply using a computer, “processes that automate tasks that humans are capable of performing are patent eligible if properly claimed.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed.Cir. 2016).

IV. ARGUMENT

When all factual inferences are weighed in Digi Portal’s favor, Defendant has not overcome the presumption that the asserted claims are eligible under §101.

A. The ‘854 Group Patents are Eligible Under §101

Aveda rehashes arguments for the ‘854 Group patents that were before Judge Stark and provides no basis for a contrary holding. Furthermore, Aveda’s abstract idea again misses the point of the claims and ignores the inventive concepts.

1. Aveda Rehashes Arguments Rejected by Judge Stark

Aveda created its abstract idea using arguments previously rejected by Judge Stark. In the prior case, the defendant argued that the claims were directed to the abstract idea of “providing targeted advertising to a user.” The defendant also argued that two additional limitations in claim 1 are “an abstract idea.” (Ex. O at 11) (“perform[s] the method ‘receiv[e] a template program’ that

comes from ‘one of at least two locations’ based on ‘the frequency of the user request’ * * * [, which means] the program is stored in a memory, either shared or cache”). Judge Stark rejected both these arguments. Judge Stark held that the claims are not directed to the abstract idea of “providing targeted advertising to a user” and rejected the argument that the two inventive concepts were abstract ideas. *Digi Portal*, 2019 U.S. Dist. LEXIS 112112, *9; (Ex. O at 11).

Despite this opinion, Aveda’s abstract idea starts with the rejected abstract idea and then argues that the inventive concepts are the abstract idea “from the most convenient location,” *e.g.*, caching. (D.I. 11 at 15). Although Judge Stark theorized about the possibility of a different abstract idea, combining the previously rejected abstract idea with the inventive concepts is unfounded. Judge Stark also rejected that the claims were directed to conventional caching, finding it at most raised fact issues. *Digi Portal*, 2019 U.S. Dist. LEXIS 112112, *10. Aveda has therefore not raised any new basis for challenging the patent eligibility of the claims of the ‘854 Group that all have at least the same two inventive concept limitations. *Realtime Data LLC v. Reduxio Sys.*, 2020 U.S. App. LEXIS 33527, *15 (Fed.Cir. Oct. 23, 2020).

2. The ‘854 Group Claims are Not Directed to an Abstract Idea

Claim 1 of the ‘854 patent and all of the asserted claims in the ‘854 Group are not directed to an abstract idea. Defendant’s abstract idea is inconsistent with the scope of the claim because the claims are not directed to retrieving a generic template from the most convenient location. Instead, the claims are directed to specific improvements to generating customized web pages.

a. Defendant’s Alleged Abstract Idea is Inconsistent with the Claim Which Allows Providing Information from a Less Convenient Location Based on the Frequency of a Request

Defendant’s abstract idea misunderstands the invention. The claim is not directed to providing information “from the most convenient location.”

Claim 1 requires that “the [unique user] template program is received from one of at least

two locations, the location determined from the frequency of the user request for the customized page.” (*Id.* at col. 7:6-9). There is no reference in the claim or specification to the frequency of the user request being related to convenience. The specification explains that template programs may be retrieved from one or more page servers, shared storage, or from a user configuration database. (*Id.* at col. 3:37-39, col. 4:1-3, 13-17; Figs. 1, 2). Where the templates may be stored depends on the frequency of use. (*Id.* at col. 4:49 – col. 5:15). For example, storing the template program on the page server is more effective when a user makes several requests in a short time span and then does not make requests for a long time. (*Id.* at col. 5:29-32). However, a less frequently requested template program would be received from somewhere else, *e.g.*, in a user configuration database or another page server. (*Id.* at col. 3:37-39, col. 4:1-3; Figs. 1, 2).

In fact, storing the template program at two locations allows it to be received from a *less* convenient location based on the frequency of the user request. This is one of the benefits of the invention: storing the template program in multiple locations eliminates the need to have the user’s template program regenerated upon request (and can be retrieved from a less efficient location) even if it is no longer available at another location. (Ex. A col. 3:37-39, col. 4:49-60, col. 5:27-29). The “most convenient location” of the template program is therefore irrelevant. (*Id.*).

Defendant also incorrectly refers to the patents as “Cache Patents.” No independent claim requires caching. Judge Stark also discarded that the claims were directed to new or improved cache. (*Supra* §IV.A.1). Caching is instead added separately in dependent claims. (*E.g.*, Ex. G at cl. 2, 12; Ex. K at cl. 2, 11). Defendant contends that the patents are “Cache Patents” by relying on preferred embodiments. (D.I. 11 at 16-17). However, preferred embodiments do not define the claims. *Thorner v. Sony Computer Ent. America LLC*, 669 F.3d 1362, 1365 (Fed.Cir. 2012). Although exemplary embodiments include cache as a location for storing template programs, the

specification also includes storing template programs in permanent storage, such as a user configuration database and shared memory, and multiple servers. (Ex. A at col. 3:37-39, col. 4:13-21, 62-65). Defendant's reliance on *Versata Software, Inc. v. NetBrain Techs., Inc.*, 2015 U.S. Dist. LEXIS 132000 (D.Del. Sept. 30, 2015) is therefore misplaced. In *Versata*, the invention was only claiming an improved method of caching and there was no explanation of how the invention improved prior art systems. *Id.* at *71, *74. Here, the claim is not directed to caching, recycling old information, or collecting information into a new file. Instead, the claim improves upon the prior art by generating a unique user template program built with certain information, retrieving it from one of at least two locations, the location is determined from the frequency of the user's request, and the program is then executed to generate a customized page.

b. Claim 1 of the '854 Patent is Directed to Specific Asserted Improvements in Computer Capabilities

The claim is not directed to doing something on a computer that was previously done by hand. Instead, as Judge Stark held, "the invention is changing the computer functionality to improve the efficiency of the technological process that was already using a computer." *Digi Portal*, 2019 U.S. Dist. LEXIS 112112, *10; *also id.* at *8 (Claim 1 "recites a new way of generating customized web pages to improve the efficiency and scalability of delivering them."). Conjuring a new abstract idea (particularly one that substantially overlaps the prior abstract idea) does not miraculously negate the improved efficiency and scalability of a technological process already performed by a computer. Any such argument would improperly turn a §101 analysis entirely into fact issues. Instead, here, the specification lays out the specific features of the claimed invention that result in the improvements in efficiency and scalability.

A template program unique to the user is built based on user supplied configuration information including demographic information. (*Id.* at col. 7:2-6). The unique user template

program is then stored in at least two locations from where it can be received. (*Id.* at col. 7:6-7). The locations from which the template is received is determined from the frequency of the user request for the customized page. (*Id.* at col. 7:9-10). These steps allow a page server to more quickly serve custom pages that is scalable to many users simultaneous. (*Id.* at col. 1:27-30). Then the claim has additional steps of receiving an advertisement selected based on the demographics, executing the template program, and providing the customized page to the user. (*Id.* at col. 7:10-13). The focus of the improved method is rooted in a computer technology that necessarily requires a computer and is patent-eligible subject matter. *Enfish*, 822 F.3d at 1336; *Finjan, Inc. v. Blue Coat Sys.*, 879 F.3d 1299, 1305 (Fed.Cir. 2018); *Core Wireless*, 880 F.3d at 1362-63.

The claim limitations also provided substantial benefits over the prior art. The prior art systems did not scale well, clogged networks with data, or relied on outdated local data. (Ex. A at col. 1:42-65). The inventors developed a method that solved the problem with efficiently serving customized web pages. (*Id.* at col. 1:27-30). As described above, the invention solves the problem in a particular way. (*Id.* at col. 7:1-9). Defendant's abstract idea does not address the problem solved by the claims and should therefore be rejected because it is at such a high level of abstraction that it is untethered to the claim language. *Enfish*, 822 F.3d at 1337 (*citing Alice*, 134 S.Ct. at 2354); *also McRO*, 837 F.3d at 1313; *Core Wireless*, 880 F.3d at 1362.

Just like in *Data Engines*, Defendant "fails to appreciate the functional improvement achieved by the specifically recited [limitations] in the claimed methods." *Data Engines Techs. LLC v. Google LLC*, 906 F.3d 999, 1101 (Fed.Cir. 2018). The invention is not providing customized information from a convenient location. Instead, the invention uses a unique user template program built based on user-supplied configuration information and the template program is received from one of at least two locations, the location of which is determined based on the

frequency of the user request for the customized page. (Ex. A at col. 7:1-9). The claim recites specific steps for how customized web pages are generated, which the specification explains improves the efficiency and scalability of delivering them. *Digi Portal*, 2019 U.S. Dist. LEXIS 112112 at *8; *Finjan*, 879 F.3d at 1305; *Uniloc*, 772 Fed.Appx. at 897; (Ex. A at col. 1:28-30).

In sum, step one is not a game of whether you can eventually “identify a patent-ineligible concept underlying the claim.” See *Data Engines*, 906 F.3d at 1011 (quoting *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050 (Fed.Cir. 2016)). The question is whether the claim as a whole is directed to an abstract idea. *Data Engines*, 906 F.3d at 1011. Here, the claims of the ‘854 Group are not directed to an abstract idea.

3. The ‘854 Group Claims Have Inventive Concepts

The claims are patent eligible under the second step of the §101 analysis because they have inventive concepts sufficient to transform the claimed abstract idea into a patent-eligible application. *Alice*, 134 S.Ct. at 2357. Defendant’s simply contends that the steps are generic without any explanation for why they are generic. The crux of Defendant’s argument is that the claim uses generic computer components and therefore there are no inventive concepts, *i.e.*, software patents are ineligible subject matter. This argument has been rejected by the Federal Circuit. *E.g.*, *Bascom*, 827 F.3d at 1350-51; *Enfish*, 822 F.3d at 1338; *McRO*, 837 F.3d at 1313; *also Tecsec, Inc. v. Adobe, Inc.*, 2020 U.S. App. LEXIS 33408, *31-32 (Fed.Cir. Oct. 23, 2020). Instead, “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Bascom*, 827 F.3d at 1350.

Unlike *Versata* and *Customedia*, where generic computer components were the only meaningful limitations, claim 1 has several inventive concepts. See 2015 U.S.Dist. LEXIS 132000 *75-76; *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed.Cir. 2020). The claims require a template program unique to the user that is built based on user-supplied

information including demographic information, receiving the template program from one of at least two locations, and the location is determined from the frequency of the user request. The intrinsic evidence explains that these combined limitations are not conventional. When the claims have limitations “directed to the arguably unconventional inventive concept described in the specification,” the specification supports improved computer functionality. *Berkheimer*, 881 F.3d at 1370. The limitations significantly narrow the scope from the “abstract idea” and are patent-eligible. *Bascom*, 827 F.3d at 1350, 1352; *McRO*, 837 F.3d at 1315.

Furthermore, claim 1 is more than drafted to monopolize the abstract idea of “providing customized information to a user from the most convenient location.” First, the claim requires receiving a template program unique to the user (rather than a generic template) that is built based on user supplied demographic information. (Ex. A at col. 7:1-6). Using a template program unique to the user got around the problem of scalability of prior art methods. (*Id.* at col. 1:53-58). By storing and using a template program unique to the user, the system “save[s] a step and reduce[s] the time to respond to a request for a page.” (*Id.* at col. 5:27-29). Second, using user configuration information that is supplied by the user to build a unique user template program was not found in the prior art and was used to distinguish the claimed invention during the prosecution history. (Ex. D at 6). Third, receiving the template program from one of at least two locations distinguish the claimed invention operation from the prior art during prosecution. (Ex. C at 9). Storing information in two location allows for a quick recovery if one storage location crashes. (Ex. A at col. 4 at 12-22). And, fourth, the claim was also distinguished from the prior art by the location for receiving the unique user template program determined by the frequency of the request for the customized page. (Ex. C at 9). Storing the template based on the frequency of a user request is a more effective way to store the template to reduce response time. (Ex. A at col. 5:27-32). These

multiple material, non-generic limitations demonstrate inventive concepts that do not monopolizing the abstract idea of “providing customized information to a user from the most convenient location.” See *DDR Holdings*, 773 F.3d at 1259; *McRO*, 837 F.3d at 1315.

4. The Remaining ‘854 Group Claims Are Patent Eligible and Are Not Properly Lumped in with the ‘854 Patent

Defendant incorrectly lumps three other patents-in-suit with the ‘854 patent with only cursory arguments as to the other claims of the ‘854 Group. (D.I. 11 at 15-16).⁴ The claims have some overlap because each contains the two inventive concepts “wherein the template program is received from one of at least two locations” and “the location based upon a frequency of user requests for the customized page.” However, the claims of the ‘414 patent, ‘359 patent, and ‘342 patent contain additional limitations that differentiate the claims from claim 1 of the ‘854 patent.

For example, the asserted claims of the ‘414 and ‘359 patents require storing real-time information in shared local storage for use in the executed template program. (*E.g.*, Ex. G at col. 7:18-19, 32-34; Ex. K at col. 16:65-66, col. 17:9-11). The specification explains that storing real-time information in shared local storage improves upon the prior art because the custom page can be built within the page server thereby eliminating the need to make requests to other servers, like prior art CGI did. (Ex. G at col. 2:25-28). Furthermore, the asserted claims of the ‘414 and ‘359 patents require storing the user-specific template program with a user identifier, which the patent explains allows for the server to access the user specific template program more quickly. (Ex. G at col. 3:61-64, col. 7:20-22, 25-28; Ex. K at col. 16:66 – col. 17:5). The asserted claim of the ‘342 patent also requires the use of real-time information in a unique user template program along with generating the program from a global generic template combined with customization

⁴ Defendant’s Exhibit B color codes limitations with an overbroad brush. As explained in this section and as shown in Exhibit N, there are limitations that provided benefits over the prior art that Defendant incorrectly grouped in the same color.

information unique to the user. (Ex. M at col. 7:17-20, 23-26). These additional limitations are not inconsequential because they relate directly to the improvements discussed above.

Defendant has therefore failed to satisfy its burden to show that claim 1 of the ‘854 patent is representative of the asserted claims of the ‘414 patent, ‘359 patent, and ‘342 patent.

B. Claim 2 of the ‘227 Patent is Eligible Under §101

Defendant’s abstract idea fails to recognize the problems solved by the asserted claim and disregards the inventive concepts that improved upon conventional prior art systems.

1. Claim 2 of the ‘227 Patent Does Not Recite an Abstract Idea

Defendant oversimplifies claim 2 of the ‘227 patent by contending that the claim is directed to the abstract idea of “providing customized information to a user.” (D.I. 11 at 7). This abstract idea glosses over important aspects of the claim and fails to address the problems of serving dynamically generated web pages. *Enfish*, 822 F.3d at 1337. The claim is not information tailoring or providing a customized webpage by inserting real-time data into a generic template. Methods of creating customized webpages were known in the prior art but were slow and could not handle large numbers of requests. (Ex. B at col. 1:30-46). The claim provides a method to improve how customized pages are generated so systems could scale to larger volumes of requests. (*E.g., id.* at col. 1:56-57, col. 2:15-21). In other words, the invention is necessarily rooted in computer technology to overcome a problem specifically arising in the realm of computer networks.

Unlike the prior art generic templates,⁵ the claim requires combining user preferences and

⁵ Defendant relies on cases in which information is put in a generic template like in the prior art CGI, rather than creating a unique user template program based on user preferences. *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed.Cir. 2015) (“retaining information lost in the navigation of online forms”); *Hyper Search, LLC v. Facebook, Inc.*, 2018 U.S. Dist. LEXIS 212336, *13-*14 (D.Del. Dec. 17, 2018) (“storing a template, creating a document based on that template, and storing the document for access by the public”); *SynKloud Techs., LLC v. HP Inc.*, 2020 U.S. Dist. LEXIS 178524, *33 (D.Del. Sept. 28, 2020) (“process of formatting emails using templates for delivery to a printer”).

a template to form a unique user template program. (Ex. B at col. 20:48-49; col. 5:8-49; Figs. 3, 4). Real-time information is stored in a storage device so any custom page can be built within the page server thereby eliminating the need to make requests to other servers for live data. (Ex. I at 9; Ex. B at col. 2:3-21, col. 5:15-21; col. 20:45-47; Ex. E at 5). The claim requires executing the unique template program using the stored real-time information to generate the customized page in real-time response to a user request. (*Id.* at col. 20:53-62). These limitations solved the prior art problem that required time-consuming calls to other servers using conventional CGI scripts. (Ex. I at 9; Ex. B at col. 2:3-21, col. 5:15-21; Ex. E at 5).

Defendant overgeneralizes the claim by ignoring the important limitations and benefits of the claim. *Tecsec*, 2020 U.S. App. LEXIS 33408, *36; (D.I. 11 at 7). Claim 2 “do[es] not simply recite, without more, the mere desired result of” providing customized information to a user, “but rather recite[s] a specific solution for accomplishing that goal.” *Koninklijke*, 942 F.3d at 1151. The claim “sufficiently capture[s] the inventors’ asserted technical contribution to the prior art by reciting how the solution specifically improves the function of prior art [] systems.” *Id.* On the other hand, Defendant’s cases address claims that were generic and did not improve networking or computer functionality in any particular way. *E.g.*, *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed.Cir. 2015); *In re Morsa*, 809 Fed.Appx. 913, 917 (Fed.Cir. 2020); *Bridge & Post, Inc. v. Verizon Communs., Inc.*, 778 Fed.Appx. 882, 889 (Fed.Cir. 2019); *Personalized Media Communs., LLC v. Amazon.com, Inc.*, 161 F.Supp.3d 325, 331 (D.Del.).

Like in *Bascom*, the claim provides a particular arrangement of elements that is a technical improvement over prior art ways of generating customized web pages. *Bascom*, 827 F.3d at 1350. The invention is creating a unique user template program by combining user preferences and a generic template, obtaining and storing real-time information in a storage device, and then

executing the template program using the stored real-time information to generate the customized page in real-time response to a user request. (Ex. B at col. 20:45-62). The claims solve the prior art problem of slow generation of customized web pages. (Ex. I at 9; Ex. B at col. 2:3-21, col. 5:15-21); *Visual Memory*, 867 F.3d at 1259; *Bascom*, 827 F.3d at 1350. The claim is not simply increasing speed by using generic computer components, it is reducing the steps that the prior art performed to generate the web pages, thereby increasing the speed and scalability of customized web page generation. (Ex. I at 9; Ex. B at col. 2:3-21, col. 5:15-21; Ex. E at 5).

Claim 2 of the ‘227 patent is therefore similar to *Enfish* and *Visual Memory* because the claim has limitations that improve the generation of requested customized web pages.

2. Claim 2 of the ‘227 Patent Has Inventive Concepts

Even if the Court holds that Defendant’s alleged abstract idea is applicable to claim 2 of the ‘227 patent, the claim is patent eligible under the second step of the §101 analysis because it has inventive concepts. *Alice*, 134 S.Ct. at 2357. Claim 2 is not monopolizing the abstract idea of “providing customized information to a user.” As explained in the specification and prosecution history, the conventional prior art methods of generating customized web pages, such as CGI, could not handle large volumes of requests. (Ex. B at col. 1:30-46). The claim requires creating a unique user template program and storing real-time data that is then used as input into the unique user template program. These limitations each improved upon the prior art by reducing requests to other servers for live data and saving steps thereby reducing the time to respond to a request for a customized web page. (Ex. I at 9; Ex. B at col. 2:3-21, col. 5:15-21).

Defendant contends that claim 2 is unpatentable because it can work on generic computer components. The fact that the invention can run on a general purpose computer does not “doom[] the claims” because the claim is “directed to an improvement in the functioning of a computer.” *Enfish*, 822 F.3d at 1338; *also Bascom*, 827 F.3d at 1350-51. This is not a situation in which

“general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation.” *Enfish*, 822 F.3d at 1339. Instead, this invention is one that can only exist on computers because it is an improvement to the efficiency and scalability of responding to requests for the delivery of customized dynamically generated web pages to users. *See Digi Portal*, 2019 U.S. Dist. Lexis 112112, *10 (“the invention is changing the computer functionality”). Furthermore, the steps of generating a unique user template program and storing real-time data for later insertion into the template are unconventional and do not monopolize “providing customized information to a user.” *See DDR Holdings*, 773 F.3d at 1259; *McRO*, 837 F.3d at 1315.

As for the remaining claims of the ‘227 patent, Defendant provides only cursory and overgeneralized descriptions of the remaining claims and makes no attempt to explain why claim 2 is representative of all claims of the ‘227 patent. (D.I. 11 at 15). For example, dependent claims require certain memory capacity for storing real-time information, assigning user requests to multiple servers for load distribution, and generating default user configurations based on demographic information. Independent claim 1 also requires a data structure with shared memory and means for generating default user configuration. These limitations have additional technical specificity that provides the benefits of the invention described in the specification. Defendant has therefore not satisfied its burden on the remaining claims of the ‘227 patent.

CONCLUSION

Digi Portal LLC respectfully requests that the Court deny Defendant’s Motion to Dismiss.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served on February 24, 2021, to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system per Local Rule CV-5.

/s/ Jimmy Chong
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